SPIRIT

CR800+ Recumbent Bike

OWNER'S MANUAL

Please carefully read this entire manual before operating your new Recumbent Bike.

TABLE OF **CONTENTS**

XR880-SB023_2201(SP)B

IMPORTANT **SAFETY INSTRUCTIONS**

WARNING - Read all instructions before using this exercise equipment.

WARNING - Heart rate monitoring systems may be inaccurate. Over exercising may result in serious injury or death. If you feel faint stop exercising immediately.

- Do not operate bike on deeply padded, plush or shag carpet. Damage to both carpet and bike may result.
- Keep children away from the bike. There are obvious pinch points and other caution areas that can cause harm.
- Keep hands away from all moving parts.
- Never drop or insert any object into any openings.
- Do not use outdoors.
- Do not attempt to use your bike for any purpose other than for the purpose it is intended.
- The hand pulse sensors are not medical devices. Various factors, including the user's movement, may affect the accuracy of heart rate readings. The pulse sensors are intended only as exercise aids in determining heart rate trends in general.
- Wear proper shoes. High heels, dress shoes, sandals or bare feet are not suitable for use on your bike. Quality athletic shoes are recommended to avoid leg fatigue.
- This exercise equipment can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the exercise equipment in a safe way and understand the hazards involved.. Children shall not play with the exercise equipment. Cleaning and user maintenance shall not be made by children without supervision
- Children should be supervised to ensure that they do not play with the exercise equipment.
- "WARNING! Heart rate monitoring systems may be inaccurate. Over exercising may result in serious injury or death. If you feel faint stop exercising immediately".
- **WARNING:** Injuries to health may result from incorrect or excessive training.
- This exercise equipment is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
- Before beginning this or any exercise program, consult a physician. This is especially important for persons over the age of 35 or persons with pre-existing health conditions.
- Close supervision is necessary when this exercise equipment is used by, on, or near children, invalids, or disabled persons.

SAVE THESE INSTRUCTIONS - THINK SAFETY!

IMPORTANT **ELECTRICAL INSTRUCTIONS**

WARNING!

Be aware that the generator is producing A.C. power while the fitness bike is being used. Do not service the fitness bike while the generator is spinning; serious electric shock could occur.

NEVER expose this bike to rain or moisture. This product is **NOT** designed for use outdoors, near a pool or spa, or in any other high humidity environment.
The operating temperature specification is 5 to 48 degrees Celsius (40 to 120 degrees Fahrenheit), and humidity is 95% non-condensing (no water drops forming on surfaces).

IMPORTANT **OPERATION INSTRUCTIONS**

- **NEVER** operate this bike without reading and completely understanding the results of any operational change you request from the computer.
- **All users** should have medical clearance before starting any rigorous exercise program. This is especially important for persons with a history of heart disease or other high risk factors.
- **The user** should adjust the seat to a position that is comfortable during exercise.
- Understand that changes in resistance do not occur immediately. Set your desired resistance level on the computer console and release the adjustment key. The computer will obey the command gradually.
- Use caution while participating in other activities while pedaling on your bike; such as watching television, reading, etc. These distractions may cause you to lose balance which may result in serious injury.
- Do not use excessive pressure on console control keys. They are precision set to function properly with little finger pressure. If you feel the buttons are not functioning properly with normal pressure contact your dealer.

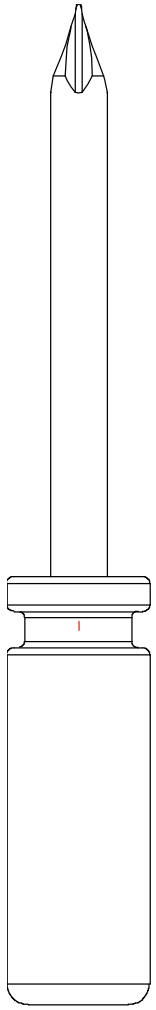
ASSEMBLY INSTRUCTIONS

UNPACKING

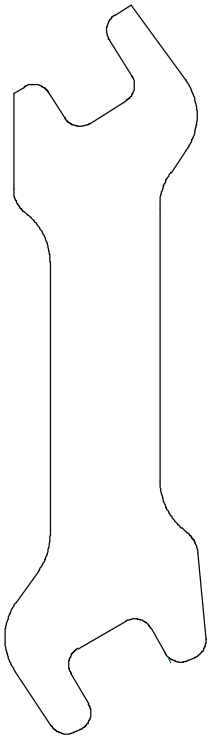
1. Cut the straps then lift the box over the unit and unpack.

2. Locate the hardware package. The hardware is separated into four steps. Remove the tools first. Remove the hardware for each step as needed to avoid confusion. The numbers in the instructions that are in parenthesis (#) are the item number from the assembly drawing for reference.

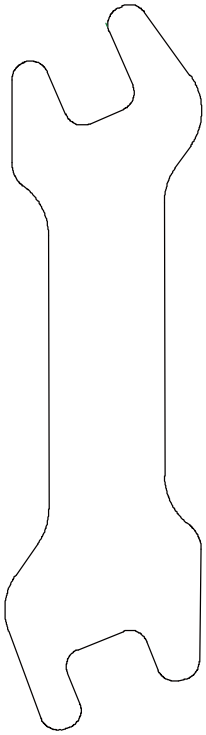
ASSEMBLY TOOLS



#114. Phillips Head Screw driver (1 pc)

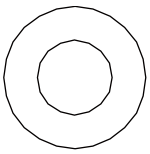


#132. 14/15mm Wrench (1 pc)

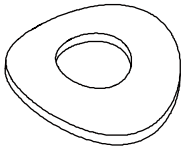


#112. 12/14mm Wrench (1 pc)

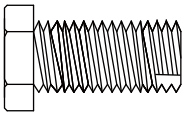
STEP 1



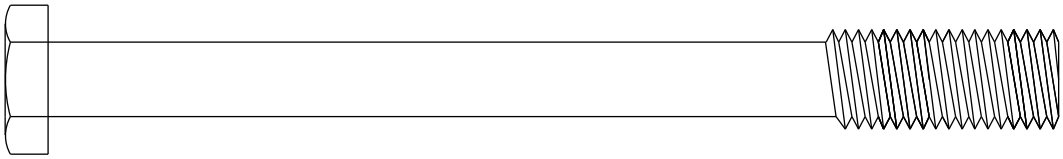
#77 - 3/8" x 19 x1.5T
Flat Washer (6pcs)



#203 - 3/8" x 23 x2.0T
Curved Washer (2pcs)

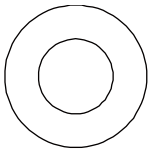


#176 - 3/8"× 3/4" Hex Head Bolt (6pcs)

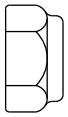


#65 - 3/8” x 135mm Hex Head Bolt (2pcs)

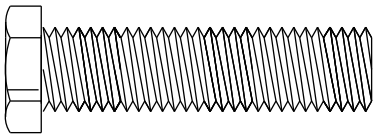
STEP 2



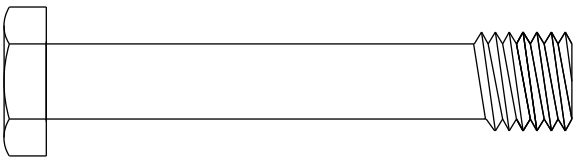
#77 - 3/8"x19 x1.5T
Flat Washer (4pcs)



#89 - 3/8"×7T
Nylon Nut (4pcs)

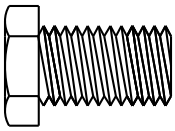


#71 - 3/8"×1-3/4" Hex Head Bolt (2pcs)

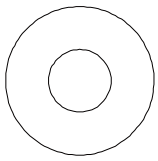


#175 - 3/8"×2-3/4" Hex Head Bolt (2pcs)

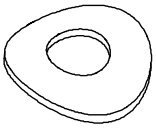
STEP 3



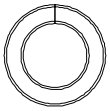
#68 - 5/16” x 5/8”
Hex Head Bolt (8pcs)



#76 – 8 x19 x1.5T
Flat Washer (6pcs)

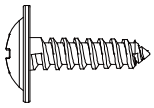


#83 - 5/16"×19×1.5T
Curved Washer (2pcs)



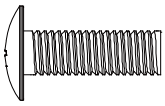
#82 - 5/16”x1.5T
Split Washer (2pcs)

STEP 4

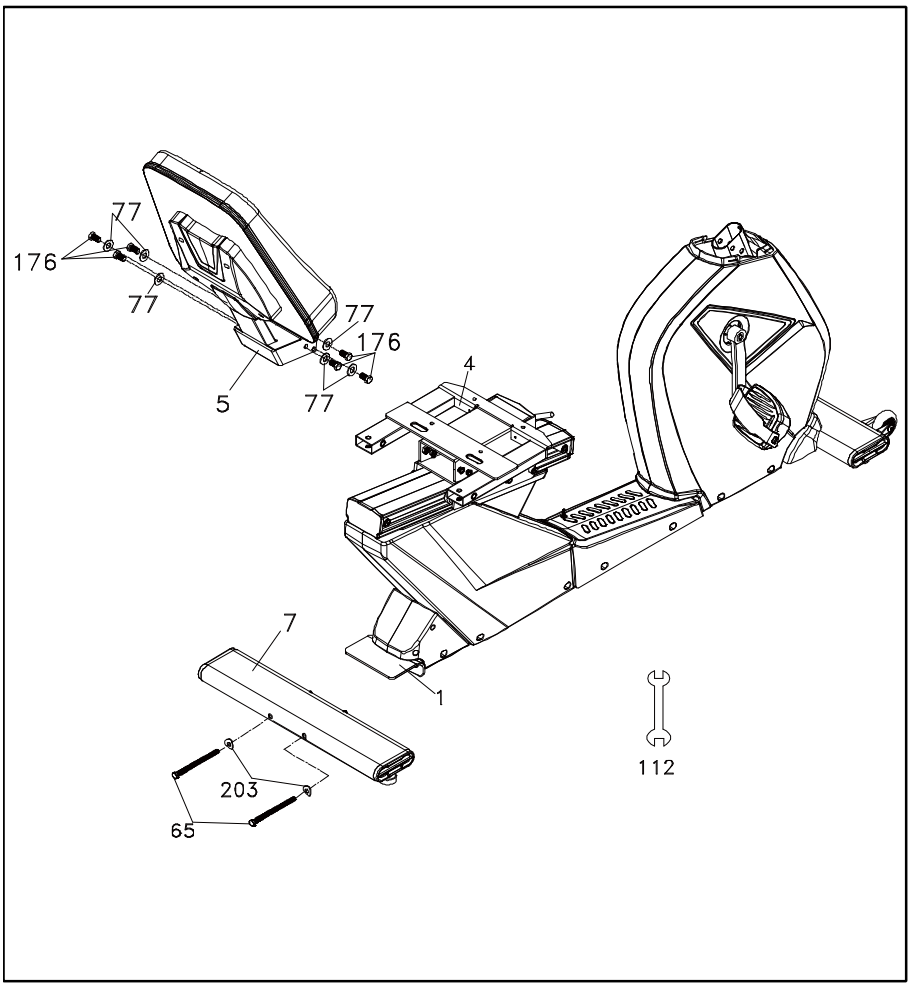


#105 - 4 x 16mm
Self Tapping Screw (4pcs)

#99 - M5 x 12mm
Phillips Head Screw (4pcs)

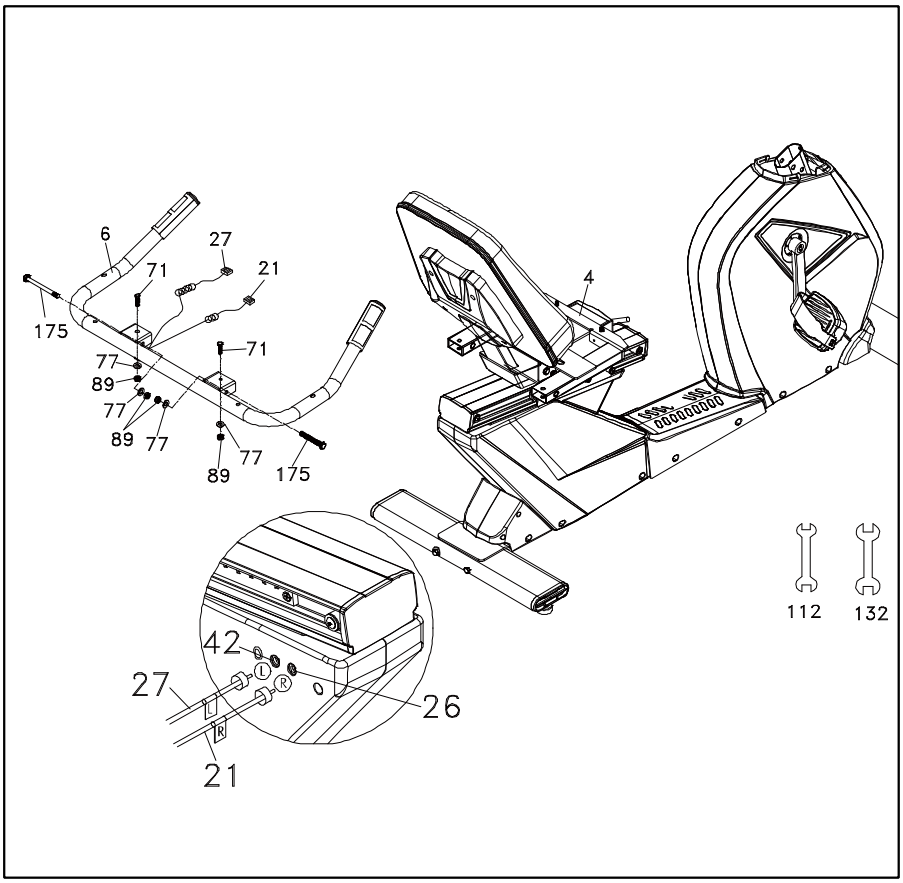


#98 - M6 x 15mm
Phillips Head Screw (4pcs)



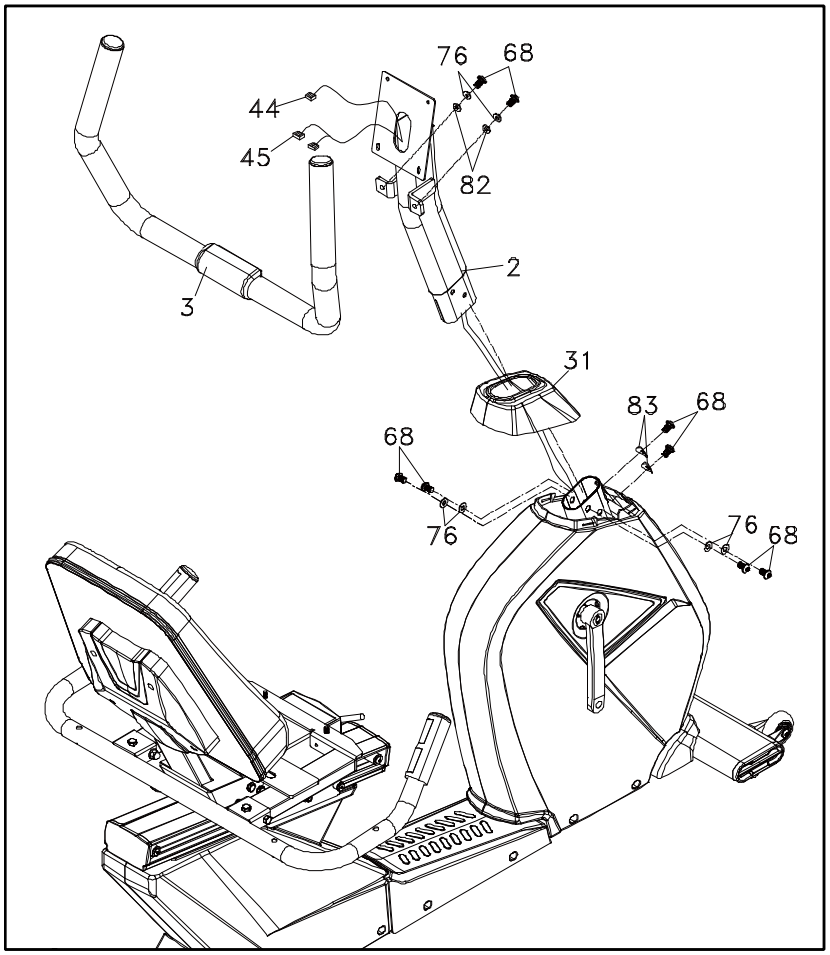
STEP 1

1. Install the Rear Stabilizer (No.7) onto the Main Frame (No.1) with 2 Hex Head Bolts (No.65) and 2 Curved Washers (No.203).
2. Install the Seat Back Bracket (No.5) to the Seat Carriage (No.4) using 6 Hex Head Bolts (No.176) and 6 Flat Washers (No.77).



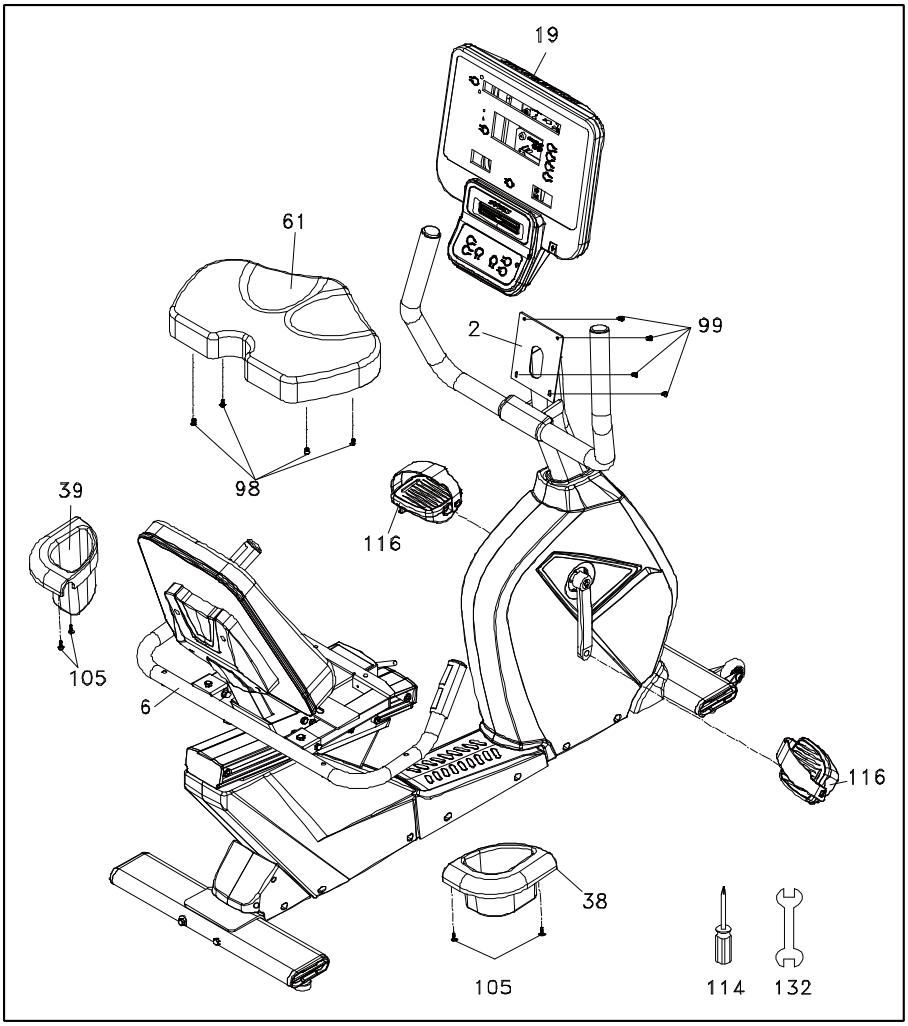
STEP 2

1. Install the Rear Handlebar (No.6) onto the Seat Carriage (No.4) with 4 Hex Head Bolts (No.71) installed through the top holes and secured with 4 Flat Washers (No.77) and Nylon Nuts (No.89). Install 2 Hex Head Bolts (No.175) through the side holes and secure with 2 Flat Washers (No.77) and Nylon Nuts (No.89).
2. Plug the Left Hand Pulse Wire (No.27) into the corresponding Left Socket (No.42) located in the left plastic side case under the seat carriage, and the Right Hand Pulse Wire (No.21) into the Right Socket (No.26).



STEP 3

1. Install the Console Mast Cover (No.31) onto the Console Mast (No.2), making sure it is facing the correct direction as in the picture below. Run the two wire harnesses through the bottom of the console mast tube and out the top opening.
2. Pull the Computer Cable (No.44) and the Handpulse Wire (No.45) through Console Mast (No.2)
3. Slide the Console Mast into the Main Frame (No.1) being careful to not pinch the wires. Fasten the console mast with 6 Hex Head Bolts (No.68) and 4 Flat Washers (No.76) on the side bolts and 2 Curved Washers (No.83) on the front bolts. Snap the Console Mast Cover (No.31) in place.
4. Install the Front Handlebars (No.3) onto the Console Mast (No.2) with 2 Hex Head Bolts (No.68), Split Washers (No.82) and Flat Washers (No.76).

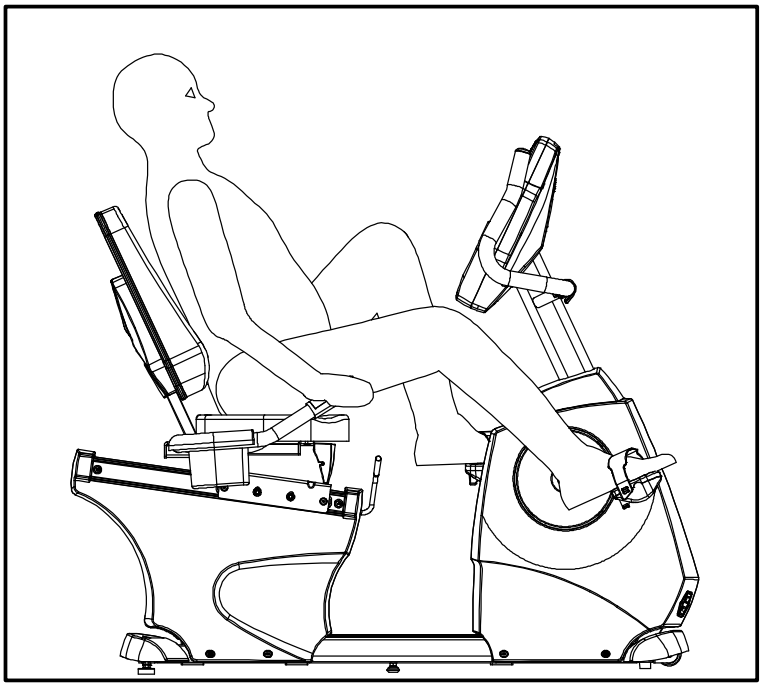


STEP 4

1. Install the left and right Cup Holders (No.39 & 38) to the rear handlebars with 4 Sheet Metal Screws (No.105).
2. Install the bottom Seat Cushion (No.61) to the Seat Carriage (No.4) with 4 Hex Head Bolts (No.98).
3. Install the Pedals (No.116) into the Crank Arms (No.51 L, 51 R). Remember that the left pedal has a reverse thread and will be screwed in with the opposite rotation. Make sure to tighten the pedals as much as you possibly can.
4. Connect the 2 Wire Harnesses (No.44 & 45) to the corresponding connectors on the back of the console. Install the Console (No.19) onto the Console Mast (No.2) and secure with 4 Philips Head Screws (99) being careful to not pinch the wires.

Suggested Posture:

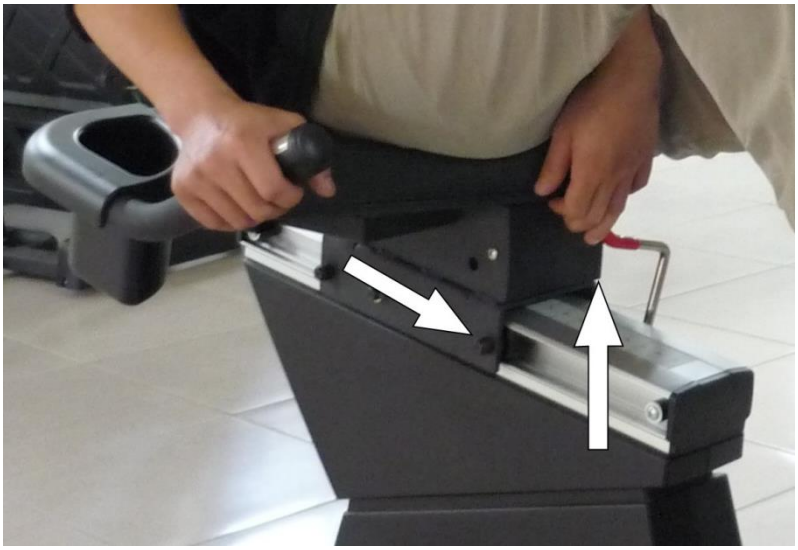
Sit straight on the saddle, grab the handle with both hands, position the feet on pedal through the pedal strap.



Seat Adjustment Instruction:

Height Adjustment

Pull adjusting lever upward to slide the seat to a proper position and then push down the lever to fix the position.



OPERATION OF **YOUR CONSOLE**

POWER

The bike has a built-in generator for power and do not need to be plugged into an AC outlet.
To power up the bike simply start to pedal, the console will turn on automatically.

When initially powered on, the console will perform an internal self-test. During this time the display may not light up for a few seconds. Continue pedaling and the display will light up. Once powered on, the Dot Matrix Message Center will be scrolling the start-up message. You may now begin your workout program.

C-SAFE FEATURE

Your console is equipped with a C-SAFE feature. The Power (POWER) port can be used for powering a remote-control audio-visual system by connecting a cable from the remote to the Power port at the back of the console. **The Communication port (COMM) can be used to interact with fitness software applications.**

Quick Start

This is the quickest way to start a workout. After the console powers up you just press the Start key to begin. This will initiate the Quick Start mode. In Quick Start the Time will count up from zero, all workout data will start to accrue and the workload may be adjusted manually by pressing the Level Up and Down buttons. The Dot Matrix Message Center display will show just the bottom row lit. As you increase the workload more rows will light indicating a harder workout. The bike will get harder to pedal as the rows increase. The Dot Matrix Message Center has 24 columns of lights and each column represents 1 minute. At the end of the 24th column (or 24 minutes of work) the display will wrap around and start at the first column again.

There are 40 levels of resistance – displayed as 10 rows of lights – available for plenty of variety. The first 10 levels are very easy workloads, and the changes between levels are set to a good progression for de-conditioned users. Levels 10-20 are more challenging but the increases from one level to the next remain small. Levels 20-30 start getting tough as the levels jump more dramatically. Levels 30-40 are extremely hard and are good for short interval peaks and elite athletic training.

1/4 MILE / 0.4 KM TRACK

The 1/4-mile track (0.4 km) will be displayed around the dot matrix window. The flashing dot indicates your progress. In the center of the track there is a lap counter for reference.

HEART RATE WINDOW

The Pulse (Heart Rate) window will display your current heart rate in beats per minute during the workout. You must use both left and right stainless steel sensors to pick up your pulse. Pulse values are displayed anytime the computer is receiving a Grip Pulse signal. You may use the Grip Pulse feature while in Heart Rate Control. The bike will also pick up wireless heart rate transmitters that are Polar compatible, including coded transmissions.

BASIC INFORMATION

The Dot Matrix Message Center, or Profile Window, will display the workout Profile. The LED Data Display Window displays pertinent exercise data. There is a RPM window for pedal speed and a Level window indicating machine resistance.

The LED Data Display Windows will initially be displaying Distance, Calories, Pulse and Time Elapsed information. When the Up/Down Scan key is pressed the next set of information will appear: Speed, Watts, METs, Time Remaining. Pressing the Up/Down Scan button, the Scan mode is activated and the LED Data Display Window will show each set of data for four seconds then switch to the next set of data in a continuous loop. Pressing the Up/Down Scan button again will bring you back to the beginning.

The Stop key button actually has several functions. Pressing the Stop key once during a program will pause the program for 5 minutes. If you need to get a drink, answer the phone, or any of the many things that could interrupt your workout, this is a great feature. To resume your workout during Pause just press the Start key. If the Stop key is pressed twice during a workout, the program will end and the console will return to the start-up screen. If the Stop key button is held down for 3 seconds, the console will perform a complete Reset. During data entry for a program the Stop key performs a Previous Screen function. This allows you to go back one step in the programming each time you press the Stop key button.
The Program Key is used to preview each program. When you first turn the console on, you may press Program key to preview what the program profile looks like. If you decide that you want to try a program, press the Enter key to select the program and enter into the data set-up mode.

PROGRAMMABLE FEATURES

Each of the programs can be customized with your personal information and changed to suit your needs. Some of the information asked for is necessary to ensure the readouts are correct. You will be asked for your Age and Weight. Your Age is necessary during the Heart Rate control program to ensure the correct settings are in the program for your Age. Otherwise the work settings could be too high or low for you; entering your Weight aides in calculating a more correct Calorie reading. Although we cannot provide an exact calorie count we do want to be as close as possible.

CALORIE NOTE: Calorie readings on every piece of exercise equipment, whether it is in a gym or at home, are not accurate and tend to vary widely. They are meant only as a guide to monitor your progress from workout to workout. The only way to measure your calorie burn accurately is in a clinical setting connected to a host of machines. This is because every person is different and burns calories at a different rate. Some good news is that you will continue to burn calories at an accelerated rate for at least an hour after you have finished exercising!

ENTERING & CHANGING SETTINGS

When you enter a program, you have the option of entering your own personal settings. If you want to work out without entering new settings, then just press the Start key. This will bypass the programming of data and take you directly to the start of your workout. If you want to change the personal settings, then just follow the instructions in the Dot Matrix Message Center. If you start a program without changing the settings, the default, or pre-saved settings will be used.

MANUAL

The Manual program works as the name implies, manually. This means that you control the workload yourself and not the computer. To start the Manual program follow the instructions below.

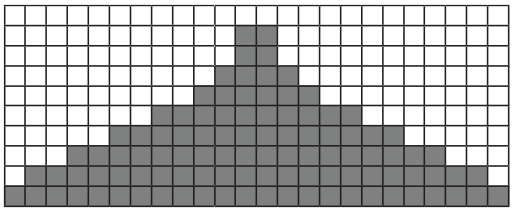
1. Using the Program button choose Manual then press the Enter button.
2. The Dot Matrix Message Center will ask you to enter your Age. You may enter your Age, using the Up and Down buttons, then press the Enter button to accept the new number and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the Weight number using the Up and Down buttons, then press enter to continue.
4. The next setting is Time. You may adjust the Time and press Enter to continue.
5. Now you are finished editing the settings and can begin your workout by pressing the Start button. You can also go back and modify your settings by pressing the Enter button.
   NOTE: At any time during the editing of data you can press the Stop button to go back one level, or screen.
6. The program automatically starts you at level one. This is the easiest level and it is a good idea to stay at level one for a while to warm up. If you want to increase the work load at any time press the Level Up button; the Level Down button will decrease the workload.
7. When the program ends you may press Start to begin the same program again or Stop to exit the program.

PRESET PROGRAMS

The fitness bike has five different programs that have been designed for a variety of workouts. These five programs have factory preset work level profiles for achieving different goals.

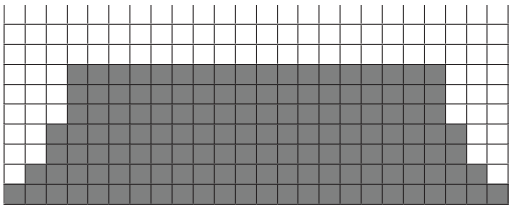
HILL

This program follows a triangle or pyramid type of gradual progression from approximately 10% of maximum effort (the level that you chose before starting this program) up to a maximum effort which lasts for 10% of the total workout time, then a gradual regression of resistance back to approximately 10% of maximum effort.



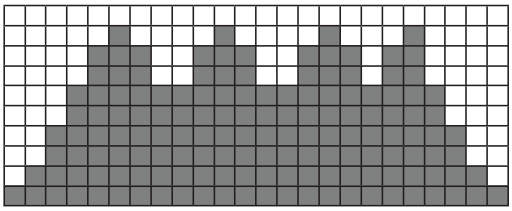
FATBURN

This program follows a quick progression up to the maximum resistance level (default or user input level) that is sustained for 2/3 of the workout. This program will challenge your ability to sustain your energy output for an extended period of time.



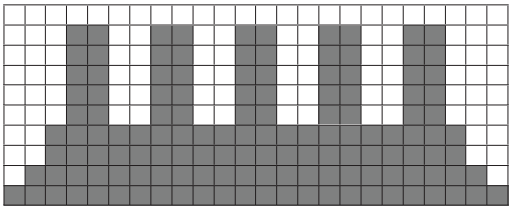
Cardio

This program presents a quick progression up to near maximum resistance level (default or user input level). It has slight fluctuations up and down to allow your heart rate to elevate, and then recover repeatedly, before beginning a quick cool down. This will build up your heart muscle and increase blood flow and lung capacity.



Interval

This program takes you through high levels of intensity followed by recovery periods of low intensity. This program utilizes and develops your “Fast Twitch” muscle fibers which are used when performing tasks that are intense and short in duration. These deplete your oxygen level and spike your heart rate, followed by periods of recovery and heart rate drop to replenish oxygen. Your cardiovascular system gets programmed to use oxygen more efficiently.



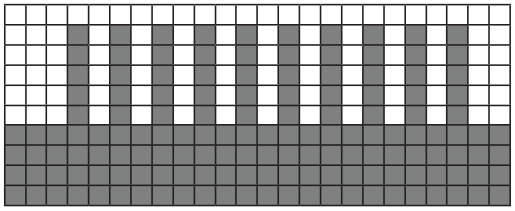
PROGRAMMING PRESET PROGRAMS

1. Using the Program button select your desired program then press the Enter button.
2. The Dot Matrix Message Center will ask you to enter your Age. You may adjust the age setting, using the Up and Down keys, then press the Enter key to accept the new number and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the weight number using the Up and Down keys, then press Enter to continue.
4. Next is Time. You may adjust the Time and press Enter to continue.
5. Now you are asked to adjust the Max Level. This is the peak exertion level you will experience during the pro-gram (at the top of the hill). Adjust the level and then press Enter.
6. Now you are finished editing the settings and can begin your workout by pressing the Start key. You can also go back and modify your settings by pressing the Stop key to go back one level, or screen.
7. If you want to increase or decrease the workload at any time during the program press the Level Up or Down key. This will change the workload settings of the entire profile, although the profile picture on the screen will not change. The reason for this is so that you can see the entire profile at all times. If the profile picture is changed it will look distorted and not a true representation of the actual profile. When you make a change to the workload, the Dot Matrix Message Center will show both the current column and program maximum levels of work.
8. During the program you will be able to scroll through the data in the LED Data Display Window by pressing the Up/Down Scan key next to the LED Data Display Windows.
9. When the program ends the Dot Matrix Message Center and LED Data Display Windows will show a summary of your workout. The summary will be displayed for a short time then the console will return to the start-up display.

HIIT PROGRAM

The HIIT, or High Intensity Interval Training, program takes advantage of the latest trend in fitness. During the pro -gram you will perform short bursts of high intensity sprinting followed by short rest periods. HIIT is a fully customizable interval training program. You can enter the number of intervals, time of each interval Sprint and Rest periods and the work intensity of the levels.

1. Using the Program button choose the HIIT program then press Enter. The Dot Matrix Message Center will ask you to enter your Age. You may enter your Age, using the Up and Down keys, then press the Enter key to accept the new number and proceed on to the next screen.
2. You are now asked to enter your Weight. You may adjust the Weight number using the Up and Down keys then press Enter to continue.
3. Next you are asked for the number of intervals you want to do. The default is 10 and the range available is 3 to 15. One interval equals 1 Sprint and 1 Rest segment.
4. Now you are asked to adjust the Sprint Level. This is the resistance level you will experience during the Sprint segments of the program. Adjust the level and then press Enter.
5. Now you are asked to adjust the Rest Level. This is the resistance level you will experience during the Rest segments of the program. Adjust the level and then press Enter.
6. Next is entering the Interval time. The Dot Matrix Message Center shows: Sprint Time:30 and Rest Time:30. The Sprint time will be blinking. You may use the Up/Down keys to adjust the Sprint time from 20 to 60 seconds then press Enter. The time for the Rest period will blink and you can adjust the time using the up and down keys and press Enter.



CONSTANT POWER PROGRAM

A Watts program is a controllable constant power whose Level adjusts when the speed is changed. To start the Constant Power program follow the instructions below.

1. Using the Program button choose the Constant Power program, then press the Enter button.
2. The Dot Matrix Message Center will ask you to enter your Age. Input your Age, using the Up/Down buttons, then press the Enter button to accept the new age and proceed on to the next screen.
3. You are now asked to enter your Weight. Adjust Weight using the Up/Down buttons then press Enter to continue.
4. Next is Time. Adjust the Time, then press Enter to continue.
5. Now you are asked to adjust the Target Watt Level. This is the constant power you will experience during the program. Adjust using the Up/Down buttons, then press Enter.
6. Now you are finished editing the settings and can begin your workout by pressing the Start button. You can also go back and modify your settings by pressing the Enter button. NOTE: At any time during the editing of data, you can press the Stop button to go back one level, or screen.
7. If you want to increase or decrease the workload at any time during the program, press the Up/Down button. This will allow you to change your target Watt level at any time during the program.
8. During the Constant Power program you will be able to scroll through the data in the LED Data Display Window by pressing the adjacent Up/Down Scan buttons.
9. When the program ends, you may press Start to begin the same program again or Stop to exit the program.

FITNESS TEST PROGRAM

The VO2 program is based on the YMCA protocol and is a sub-maximal test that uses pre-determined, fixed work levels that are based on your heart rate readings as the test progresses. The test will take anywhere between 6 to 15 minutes to complete, depending on your level of fitness. The test ends when your heart rate reaches 85% of maximum at any time during the test or your heart rate is between 110 bpm and 85% at the end of two consecutive stages. At the end of the test a VO2max score will be given. VO2max stands for Volume of Oxygen uptake which is a measurement of how much oxygen you need to perform a known amount of work. The YMCA protocol uses two to four, 3 minute stages of continuous exercise (se charts below). You will be asked to choose either, “Male” or “Female” at the beginning of the test. This choice determines which test parameters will be used during the test as shown in the charts below. If you are a de-conditioned male, you may want to choose the option for “Female” to assist in the correct calculations. Similarly, if you are a very conditioned female, you may want to choose the option for “Male.”

Workload chart for male or very fit female:

1st Stage				300 kgm/min					
HR		**< 90**			**90 - 105**			**> 105**	
2nd Stage		900 kgm/min			750 kgm/min			- 600 kgm/min	
HR	**HR <120**	**HR 120-135**	**HR >135**	**HR <120**	**HR 120-135**	**HR >135**	**HR <120**	**HR 120-135**	**HR >135**
3rd stage	1350 kgm/min	1200 kgm/min	1050 kgm/min	1200 kgm/min	1050 kgm/min	900 kgm/min	1050 kgm/min	900 kgm/min	750 kgm/min

Workload chart for female or de-conditioned male

1st Stage			150 kgm/min	
Heart Rate	**HR<80**	**HR: 80-90**	**HR: 90-100**	**HR>100**
2nd Stage	750 kgm/min	600 kgm/min	450 kgm/min	300 kgm/min
3rd Stage	900 kgm/min	750 kgm/min	600 kgm/min	450 kgm/min
4th Stage	1050 kgm/min	900 kgm/min	700 kgm/min	600 kgm/min

FITNESS TEST PROGRAMMING

1. Using the Program button choose Fitness Test and press Enter.
2. The Dot Matrix Message Center will display Gender. Use the Up and Down arrows if you need to change, then press Enter. The choice of gender determines which workload chart will be used for the test.
3. The Dot Matrix Message Center will ask you to enter your Age. You may adjust the age setting, using the Up and Down buttons then press the Enter button to accept the new number and proceed on to the next screen.
4. You are now asked to enter your Weight. You may adjust the weight number using the Up and Down buttons then press Enter to continue.
5. Now press Start to begin the test.

Before the test:

- Make sure you are in good health; check with your physician before performing any exercise if you are over the age of 35 or persons with pre-existing health conditions.
- Make sure you have warmed up and stretched before taking the test.
- Do not take in caffeine before the test.
- Hold the hand grips gently, do not tense up.

During the test:

- The console must be receiving a steady heart rate for the test to begin. You may use the hand pulse sensors or wear a heart rate chest strap transmitter.
- You must maintain a steady 50 RPM pedal speed. If your pedal speed drops below 48 RPM or goes above 52 RPM the console will emit a steady beeping sound until you are within this range.
- You may scroll through the various data readings in the LED Data Display Windows by pressing the Up/Down Scan button next to the LED Data Display Windows.
- The LED Data Display Window will always display your pedal speed on the right side to help you maintain 50RPM.

- The data shown during the test is:
    a. **Work** in **KGM** is actually an abbreviated form of kg-m/min. which is a work measurement of kilogram-force meter/minute
    b. **Work** in **Watts** (1 watt is equal to 6.11829727787 kg-m/min.)
    c. **HR** is your actual heart rate; **TGT** is the target heart rate to reach to end the test.
    d. **Time** is the total elapsed time of the test.

After the test:

- Cool down for about one to three minutes.
- Take note of your score because the console will automatically return to the start-up mode after a few minutes.

What your score means:

VO2max Chart for males and very fit females

	18-25 years old	26-35 years old	36-45 years old	46-55 years old	56-65 years old	65+ years old
excellent	>60	>56	>51	>45	>41	>37
good	52-60	49-56	43-51	39-45	36-41	33-37
above average	47-51	43-48	39-42	35-38	32-35	29-32
average	42-46	40-42	35-38	32-35	30-31	26-28
below average	37-41	35-39	31-34	29-31	26-29	22-25
poor	30-36	30-34	26-30	25-28	22-25	20-21
very poor	<30	<30	<26	<25	<22	<20

VO2max Chart for females and de-conditioned males

	18-25 years old	26-35 years old	36-45 years old	46-55 years old	56-65 years old	65+ years old
excellent	56	52	45	40	37	32
good	47-56	45-52	38-45	34-40	32-37	28-32
above average	42-46	39-44	34-37	31-33	28-31	25-27
average	38-41	35-38	31-33	28-30	25-27	22-24
below average	33-37	31-34	27-30	25-27	22-24	19-22
poor	28-32	26-30	22-26	20-24	18-21	17-18
very poor	<28	<26	<22	<20	<18	<17

CUSTOM PROGRAM

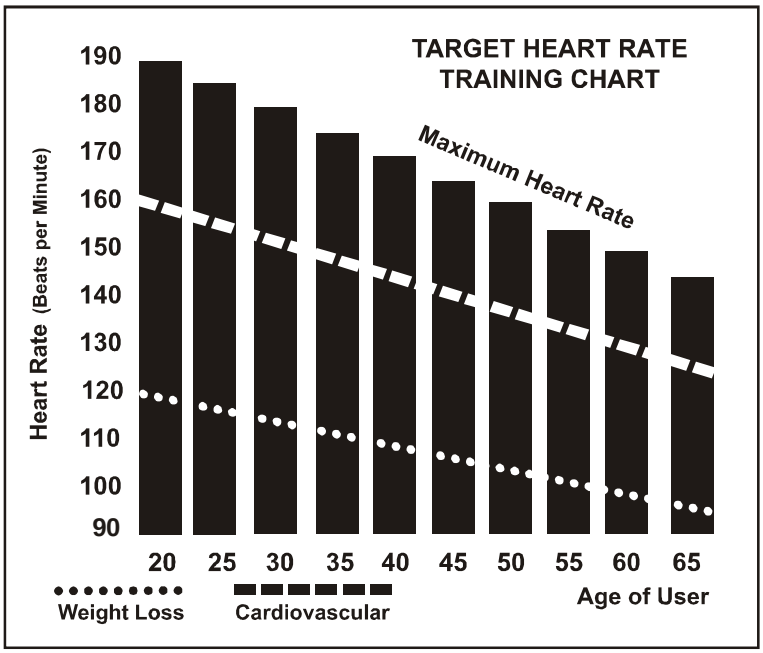
You can build your own custom program by following the instructions below.

1. Using the Program button choose Custom program then press the Enter button to begin programming.
2. Enter your name in the Dot Matrix Message Center, the letter “A” will be blinking. Use the Up/Down buttons to select the appropriate first letter of your name (pressing the UP button will switch to the letter “B”; pressing the Down button will switch to letter “Z”). Press Enter when the desired letter is displayed. Repeat this process until all of the characters of your name have been programmed (maximum 7 characters). When finished press Stop.
3. If there is a program already stored in Custom, you will have an option to run the program as it is or delete the program and build a new one. The Dot Matrix Message Center will ask: Run Program? Use the Up/Down arrows to select “Yes” or “No”. If you select No, you will then be asked if you want to delete the currently saved program. It is necessary to delete the current program if you want to build a new one.
4. The Dot Matrix Message Center will ask you to enter your Age. You may enter your age, using the Up/Down buttons, then press the Enter button to accept the new value and proceed on to the next screen.
5. You are now asked to enter your Weight. You may adjust the weight value using the Up/Down buttons, then press Enter to continue.
6. Next is Time. You may adjust the time and press Enter to continue.
7. Now you are asked to adjust the Max Resistance Level of the program, press Enter when resistance has been selected.
8. Now the first column will be blinking and you are asked to adjust the resistance level for the first segment (SEGMENT > 1) of the workout by using the Up button. When you finish adjusting the first segment, or if you don’t want to change, then press Enter to continue to the next segment.
9. The next segment will show the same workload resistance level as the previously adjusted segment. Repeat the same process as the last segment then press Enter. Continue this process until all twenty-four segments have been set.
10. After saving the program the Message Center says “New Program Saved” then will give you the option to start or modify the program. Pressing Stop will exit to the start up screen.

HEART RATE PROGRAMS

Before we get started, a word about Heart Rate:
The old motto, “no pain, no gain”, is a myth that has been overpowered by the benefits of exercising comfortably. A great deal of this success has been promoted by the use of heart rate monitors. With the proper use of a heart rate monitor, many people find that their usual choice of exercise intensity was either too high or too low and exercise is much more enjoyable by maintaining their heart rate in the desired benefit range.

To determine the benefit range in which you wish to train, you must first determine your Maximum Heart Rate. This can be accomplished by using the following formula: 220 minus your age. This will give you the Maximum heart rate (MHR) for someone of your age. To determine the effective heart rate range for specific goals you simply calculate a percentage your MHR. Your Heart rate training zone is 50% to 90% of your maximum heart rate. 60% of your MHR is the zone that burns fat while 85% is for strengthening the cardio vascular system. This 60% to 85% is the zone to stay in for maximum benefit.



For someone who is 40 years old their target heart rate zone is calculated:

220 – 40 = 180 (maximum heart rate)
180 x .6 = 108 beats per minute (60% of maximum)
180 X .85 = 153 beats per minute (85% of maximum)

So for a 40 year old the training zone would be 108 to 153 beats per minute.

If you enter your age during programming the console will perform this calculation automatically. Entering your age is used for the Heart Rate control programs. After calculating your Maximum Heart Rate you can decide upon which goal you would like to pursue.

The two most popular reasons for, or goals, of exercise are cardiovascular fitness (training for the heart and lungs) and weight control. The black columns on the chart above represent the Maximum Heart Rate for a person whose age is listed at the bottom of each column. The training heart rate, for either cardiovascular fitness or weight loss, is represented by two different lines that cut diagonally through the chart. A definition of the lines’ goal is in the bottom left-hand corner of the chart. If your goal is cardiovascular fitness or if it is weight loss, it can be achieved by training at 85% or 60%, respectively, of your Maximum Heart Rate on a schedule approved by your physician. Consult your physician before participating in any exercise program.

With all Spirit Fitness machines you may use the heart rate monitor feature without using the Heart Rate program. However, when using the heart rate monitor feature in conjunction with the Heart Rate programs, the machine will automatically adjust speed or incline to maintain the desired heart rate.

HEART RATE PROGRAM OPERATION

Heart rate information is read wireless chest strap. To start the HR program, follow the directions in the Dot Matrix Message Center.

1. Using the Program button choose the HR program (65% or 80%)then press the Enter key.
2. The Dot Matrix Message Center will ask you to enter your Age. You may enter your Age, using the Up/Down keys, then press the Enter key to accept the new number and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the Weight number using the Up/Down keys, then press Enter to continue.
4. Next is Time. You may adjust the Time and press Enter to continue.
5. Now you are asked to adjust your target Heart Rate. This is the heart rate level you will try to maintain during the program. Adjust the value and then press Enter.
6. Now you are finished editing the settings and can begin your workout by pressing the Start key. You can also go back and modify your settings by pressing the Enter key. Note: At any time during the editing of data you can press the Stop key to go back one level, or screen.
7. If you want to increase or decrease the resistance at any time during the program, press the Level Up/ Down key. This will allow you to change your target heart rate at any time during the program.
8. The program will automatically increase or decrease the amount of resistance, depending on whether your heart rate is above or below your target.

RATE OF PERCEIVED EXERTION

Heart rate is important but listening to your body also has a lot of advantages. There are more variables involved in how hard you should workout than just heart rate. Your stress level, physical health, emotional health, temperature, humidity, the time of day, the last time you ate and what you ate, all contribute to the intensity at which you should workout. If you listen to your body, it will tell you all of these things.

The rate of perceived exertion (RPE), also know as the Borg scale, was developed by Swedish physiologist G.A.V. Borg. This scale rates exercise intensity from 6 to 20 depending upon how you feel or the perception of your effort.

The scale is as follows:

Rating Perception of Effort

6 Minimal
7 Very, very light
8 Very, very light +
9 Very light
10 Very light +
11 Fairly light
12 Comfortable
13 Somewhat hard
14 Somewhat hard +
15 Hard
16 Hard +
17 Very hard
18 Very hard +
19 Very, very hard
20 Maximal

You can get an approximate heart rate level for each rating by simply adding a zero to each rating. For example a rating of 12 will result in an approximate heart rate of 120 beats per minute. Your RPE will vary depending up the factors discussed earlier. That is the major benefit of this type of training. If your body is strong and rested, you will feel strong and your pace will feel easier. When your body is in this condition, you are able to train harder and the RPE will support this. If you are feeling tired and sluggish, it is because your body needs a break. In this condition, your pace will feel harder. Again, this will show up in your RPE and you will train at the proper level for that day.

USING A HEART RATE TRANSMITTER (OPTIONAL)

How to wear your wireless chest strap transmitter:

1. Attach the transmitter to the elastic strap using the locking parts.
2. Adjust the strap as tightly as possible as long as the strap is not too tight to remain comfortable.
3. Position the transmitter with the logo centered in the middle of your body facing away from your chest (some people must position the transmitter slightly left of center). Attach the final end of the elastic strap by inserting the round end and, using the locking parts, secure the transmitter and strap around your chest.
4. Position the transmitter immediately below the pectoral muscles.
5. Sweat is the best conductor to measure very minute heart beat electrical signals. However, plain water can also be used to pre-wet the electrodes (2 ribbed oval areas on the reverse side of the belt and both sides of the transmitter). It's also recommended that you wear the transmitter strap a few minutes before your work out. Some users, because of body chemistry, have a more difficult time in achieving a strong, steady signal at the beginning. After "warming up", this problem lessens. As noted, wearing clothing over the transmitter/strap doesn't affect performance.
6. Your workout must be within range - distance between transmitter/receiver – to achieve a strong steady signal. The length of range may vary somewhat but generally stay close enough to the console to maintain good, strong, reliable readings. Wearing the transmitter immediately against bare skin assures you of proper operation. If you wish, you may wear the transmitter over a shirt. To do so, moisten the areas of the shirt that the electrodes will rest upon.

Note: The transmitter is automatically activated when it detects activity from the user's heart. Additionally, it automatically deactivates when it does not receive any activity. Although the transmitter is water resistant, moisture can have the effect of creating false signals, so you should take precautions to completely dry the transmitter after use to prolong battery life (estimated transmitter battery life is 2500 hours). The replacement battery is Panasonic CR2032.

ERRATIC OPERATION

Caution! Do not use this bike for Heart Rate Control unless a steady, solid Actual Heart Rate value is being displayed. High, wild, random numbers being displayed indicate a problem.

Areas to look for interference which may cause erratic heart rate:

1. Microwave ovens, TV's, small appliances, etc.
2. Fluorescent lights.
3. Some household security systems.
4. Electric fence for a pet.
5. Some people have problems with the transmitter picking up a signal from their skin. If you have problems try wearing the transmitter upside down.
6. The antenna that picks up your heart rate is very sensitive. If there is an outside noise source, turning the whole machine 90 degrees may de-tune the interference.
7. Another Individual wearing a transmitter within 3' of your machine's console.

If you continue to experience problems contact your dealer.

GENERAL MAINTENANCE

1. Wipe down all areas in the sweat path with a damp cloth after each workout.
2. If a squeak, thump, clicking or rough feeling develops the main cause is most likely one of two reasons:
    a. The hardware was not sufficiently tightened during assembly. All bolts that were installed during assembly need to be tightened as much as possible. It may be necessary to use a larger wrench than the one provided if you cannot tighten the bolts sufficiently. I cannot stress this point enough; 90% of calls to the service department for noise issues can be traced to loose hardware.
    b. The crank arm nut needs to be retightened
    c. If squeaks or other noises persist, check that the unit is properly leveled. There are 2 leveling pads on the bottom of the rear stabilizer, use a 14mm wrench (or adjustable wrench) to adjust the levelers.

WARNING

The effect that the safety level of the equipment can be maintained only if it is examined regularly for damage and wear.

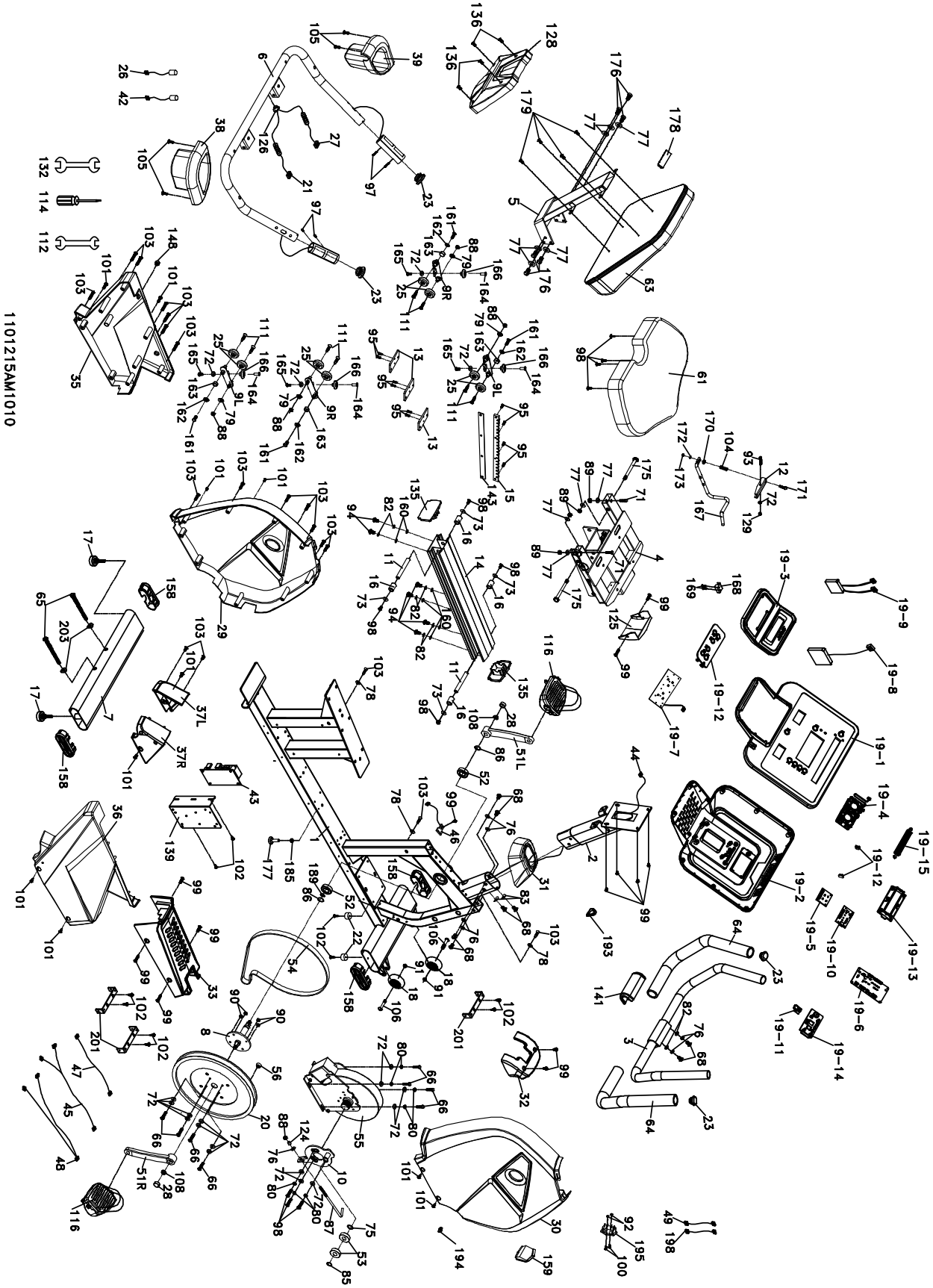
1. Replace defective components immediately and/or keep the equipment out of use until repair.
2. The components which are most susceptible to wear: Belt, Shaft, Bearing, Idler, Pedal.

ENGINEERING MODE

The console has built in maintenance/diagnostic software. The software will allow you to change the console settings from English to Metric and turn off the beeping of the speaker when a button is pressed for example. To enter the Engineering Mode Menu, press and hold down the Start, Stop and Enter buttons. Keep holding the buttons down for about 5 seconds and the Message Center will display Engineering Mode Menu. Press the Enter button to access the menu below:

1. Key Test (Will allow you to test all the keys to make sure they are functioning)
2. Display Test (Tests all the display functions)
3. Function
    - Units - Sets the display to read out in Imperial (miles, pounds, feet, etc.) or Metric (kilometers, kilograms, meters, etc.) display measurements
    - Pause mode (have five minutes)
    - Odometer Reset (Resets the odometer)
    - Beep sound (Control Beep)
    - CAB Protocol or CSAFE Protocol
4. Service
    - PWM test (Test the Brake resistance)
    - Sensor test (Test the speed sensor function)
    - Csafe test
5. Exit

EXPLODED VIEW **DIAGRAM**



PARTS **LIST**

NO.	DESCRIPTION	Q'TY
1	Main Frame	1
2	Console Mast	1
3	Front Handle Bar	1
4	Seat Carriage	1
5	Seat Back Bracket	1
6	Rear Handle Bar	1
7	Rear Stabilizer	1
8	Crank Axle	1
9L	Seat Wheel Adjustment Plate (L)	2
9R	Seat Wheel Adjustment Plate (R)	2
10	Idler Wheel Assembly	1
11	Seat Stop Axle	2
12	Seat Position Latch	1
13	Backing Plate	3
14	Aluminum Track	1
15	Rack	1
16	Spacer for Stopper Axle	4
17	Ø35 × 10m/m_Rubber Foot	2
18	Transportation Wheel	2
19	Console Assembly	1
19-01	Console Top Cover	1
19-02	Console Bottom Cover	1
19-03	Console Inner Cover	1
19-04	500m/m_Fan Assembly	1
19-05	Interface Board	1
19-06	Console Display Board	1
19-07	Main Key Board	1
19-08	W/Receiver, HR	1
19-09	Bluetooth	1
19-10	CASFE Board	1
19-11	USB charging module	1
19-12	Console Key Board	1
19-13	Wind Duct	1
19-14	End Cap	1
19-15	Deflector Fan Grill	1
19-16	Fan Grill Anchor	2
20	Drive Pulley	1
21	950m/m_Handpulse W/Cable Assembly(R)	1
22	Ø25 × Ø25 × 15T_Rubber Foot Pad	2
23	Ø32(1.8T)_Button Head Plug	4
25	Ø38_Seat Track Wheel	8
26	300m/m_Handpulse Wire	1

NO.	DESCRIPTION	Q'TY
27	750m/m_Handpulse W/Cable Assembly(L)	1
28	Crank Arm End Cap	2
29	Front Shroud (L)	1
30	Front Shroud (R)	1
31	Console Mast Cover	1
32	Front Stabilizer Cover	1
33	Beam Cover	1
35	Rear Shroud (L)	1
36	Rear Shroud (R)	1
37L	Rear Stabilizer Cover (L)	1
37R	Rear Stabilizer Cover (R)	1
38	Drink Bottle Holder (R)	1
39	Drink Bottle Holder (L)	1
42	300m/m_Handpulse Wire	1
43	Generator/Brake Controller	1
44	Computer Cable	1
45	2200m/m_Handpulse Wire	1
46	1500m/m_Sensor W/Cable	1
47	750m/m_Wire Brake Coil Harness(Red)	1
48	1100m/m_Generator Wire Harness	1
49	80m/m_Connecting Wire (White)	1
51L	Crank Arm(L)	1
51R	Crank Arm(R)	1
52	6004_Bearing	2
53	6203_Bearing	2
54	Drive Belt	1
55	Generator/Brake	1
56	Magnet	1
61	Seat	1
63	Seat Back	1
64	Handgrip Foam	2
65	3/8" × 135m/m_Hex Head Bolt(30mm)	2
66	1/4" × UNC20 × 3/4"_Hex Head Bolt	8
68	5/16" × UNC18 × 5/8"_Hex Head Bolt	8
71	3/8" × 1-3/4"_Hex Head Bolt	2
72	Ø1/4" × 13 × 1.0T_Flat Washer	20
73	Ø1/4" × 19 × 1.5T_Flat Washer	4
75	Ø17 × Ø23.5 × 1.0T_Flat Washer	1
76	Ø8 × Ø19 × 1.5T_Flat Washer	7
77	Ø3/8" × Ø19 × 1.5T_Flat Washer	12
78	Ø3/16" × Ø15 × 1.5T_Flat Washer	3
79	Ø8 × Ø18 × 3T_Knurled Lock Washer	4
80	Ø1/4"_Split Washer	7

NO.	DESCRIPTION	Q'TY
82	Ø5/16" × 1.5T_Split Washer	8
83	Ø5/16" × 19 × 1.5T_Curved Washer	2
85	Ø17_C Ring	1
86	Ø20_C Ring	2
87	M8 × 170m/m_J Bolt	1
88	M8 × 7T_Nylon Nut-Blacking	5
89	3/8" × 7T_Nylon Nut	4
90	1/4" × 8T_Nylon Nut	4
91	5/16" × 6T_Nylon Nut	2
92	M4 × P0.7 × 5T_Nylon Nut	2
93	M6 × 38m/m_Socket Head Cap Bolt (Alloy Steel)	1
94	5/16" × UNC18 × 3/4"_Hex Head Bolt	6
95	M5 × 12m/m_Flat Head Socket Screw	10
97	3 × 20m/m_Tapping Screw	4
98	M6 × 15m/m_Phillips Head Screw	11
99	M5 × 12m/m_Phillips Head Screw	13
100	M4 × 12m/m_Phillips Head Screw	2
101	Ø5 × 16L_Tapping Screw	10
102	5 × 19m/m_Tapping Screw	10
103	3.5 × 16m/m_Sheet Metal Screw	19
104	Spring	1
105	4 × 16m/m_Sheet Metal Screw	4
106	5/16" × UNC18 × 1-3/4"_Button Head Socket Bolt	2
108	M10 × P1.25 × 10T_Nut	2
109	3/8" × 7T_Nut	4
110	3/8" × 2"_Flat Head Socket Bolt	2
111	M5 × P0.8 × 10L_Flat Phillips Head Screw	8
112	12/14m/m_Wrench	1
114	Phillips Head Screw Driver	1
116	Pedal	1
124	Ø11.9 × Ø8.5 × 15m/m_Rod End Sleeve	1
125	Seat Carriage Cover	1
126	HGP Wire Grommet	1
128	Seat Back Cover	1
129	M6 × 6T_Nylon Nut	1
132	14/15m/m_Wrench	1
135	Aluminum Axle End Cap	2
136	M5 × 15m/m_Phillips Head Screw	4
139	Plate	1
141	Handle Bar Cover	1
143	Seat Track Fixing Plate	1
148	Block	1
158	End Cap	4
159	Electronic Module	1

NO.	DESCRIPTION	Q'TY
160	Ø5/16" × 16 × 1.5T_Flat Washer	6
161	M6 × 10m/m_Flat Phillips Head Screw	4
162	Ø1/4" × Ø16 × 1.0T_Flat Washer	4
163	Sleeve	4
164	M6 × 19L_Nut	4
165	M6 × 10m/m_Button Head Socket Bolt	4
166	PU Wheel	4
167	Seat Front/Aft Adjustment Lever	1
168	Lever Anchor	1
169	M5 × 25m/m_Flat Head Socket Screw	2
170	Ø15 × Ø6 × 4T_Nylon Washer	1
171	M5 × 45m/m_Socket Head Cap Bolt	1
172	Ø5 × Ø10 × 1.0T_Flat Washer	1
173	M5 × 5T_Nylon Nut	1
175	3/8" × 2-3/4"_Hex Head Bolt(12mm)	2
176	3/8" × UNC16 × 3/4"_Hex Head Bolt	6
177	Rubber Foot Pad	1
178	Square End Cap	1
179	M8 × 15m/m_Button Head Socket Bolt	4
185	3/8" × 4T_Nut	1
189	Rubber Pad	1
193	Round Cap	1
194	TV Adapter (5C2V)	1
195	AC Input Module	1
198	80m/m_Connecting Wire (Black)	1
201	Chain Cover Attaching Plate	3
203	Ø3/8" × 23 × 2.0T_Curved Washer	2